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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/534,972	12/20/2005	Torsten Pechstein	PECH3003/EJD	1719
23364 7590 08/22/2008 BACON & THOMAS, PLLC 625 SLATERS LANE FOURTH FLOOR ALEXANDRIA, VA 22314-1176				
EXAMINER				
DOLE, TIMOTHY J				
ART UNIT		PAPER NUMBER		
2831				
MAIL DATE		DELIVERY MODE		
08/22/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/534,972

**Applicant(s)**

PECHSTEIN ET AL.

**Examiner**

TIMOTHY J. DOLE

**Art Unit**

2831

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 April 2008.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 14-26 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 14-18 and 21-23 is/are rejected.  
7) ☒ Claim(s) 19, 20 and 24-26 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 16 May 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/SB/888)  
Paper No(s)/Mail Date \_\_\_\_\_  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

1. Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

2. Claim 16 is objected to because of the following informalities: the comma before the period at the end of claim 16 should be removed. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 14-18 and 21-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Beijk et al. (US 4,777,444).

Referring to claim 14, Beijik et al. discloses in a measuring point including a reference half cell (3) and a measuring half cell (4), a method for monitoring the reference half cell for determining and monitoring an ion concentration of a medium (column 3, line 65 - column 4, line 23 and column 4, line 67 - column 5, line 30), the ion concentration of the medium being determined on the basis of at least one measurement signal determined between the measuring half cell and the reference half cell (column 4, lines 18-20), the method comprising the steps of: intermittently operating the measuring point in an operating mode and in a test mode (column 3, line 65 - column 4, line 23 and column 4, line 67 - column 5, line 30); measuring the ion concentration in the operating mode (column 3, line 65 - column 4, line 23); and checking the proper functioning of the reference half cell in the test mode (column 4, line 67 - column 5, line 30).

Referring to claim 15, Beijik et al. discloses the method as claimed, further comprising the step of: determining the noise component of the measurement signal in the test mode and in the operating mode (column 3, line 65 - column 4, line 23 and column 4, line 67 - column 5, line 30).

Referring to claim 16, Beijik et al. discloses the method as claimed, further comprising the steps of: activating (using switches 20 and 24) an impedance (21) in the test mode in a measuring circuit for determining the noise component; and changing the impedance (21) in the operating mode.

Referring to claim 17, Beijik et al. discloses the method as claimed wherein: an impedance-changing element (switch 20) is activated for the purpose of changing the impedance (21).

Referring to claim 18, Beijik et al. discloses the method as claimed wherein: a switch (24) is actuated as the impedance-changing-element, which is connected in parallel with the impedance (21) for the purpose of changing the impedance.

Referring to claim 21, Beijik et al. discloses in a measuring point including a reference half cell (3) and a measuring half cell (4), an apparatus for determining an ion concentration of a medium (column 3, line 65 - column 4, line 23 and column 4, line 67 - column 5, line 30), the apparatus comprising: said measuring point (figure); a measuring circuit located between the measuring half cell (4) and the reference half cell (3); and a control and evaluation unit, which determines the ion concentration of the medium on the basis of a measurement signal determined in said measuring circuit (column 4, lines 18-20), wherein: said control and evaluation unit operates the measuring point intermittently in an operating mode (column 3, line 65 - column 4, line 23) and in a test mode (column 4, line 66 - column 5, line 30); and said control and evaluation unit determines the ion concentration of the medium in the operating mode and checks the proper functioning of the reference half cell (3) in the test mode (column 3, line 65 - column 4, line 23 and column 4, line 67 - column 5, line 30).

Referring to claim 22, Beijik et al. discloses the apparatus as claimed wherein: in said measuring circuit, an impedance (21 or 11) is provided, which is changed, preferably short-circuited, in the operating mode and is added into said measuring circuit in the test mode.

Referring to claim 23, Beijik et al. discloses the apparatus as claimed, further comprising: an impedance changing element (24 or 10), which is connected in parallel

with the impedance (21 or 11); and said impedance changing element (24 or 10) is actuated by said control and evaluation unit.

***Allowable Subject Matter***

5. Claims 19, 20 and 24-26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

6. Applicant's arguments filed April 30, 2008 have been fully considered but they are not persuasive.

7. In response to Applicant's arguments with respect to claims 14 and 21, that Beijck et al. does not teach or suggest operating a measuring point with a reference half cell and a measuring half cell intermittently operating in an operating mode and a test mode, the examiner respectfully disagrees. Applicants argue that Beijck et al. does not teach this limitation since Beijck et al. includes an additional electrode (5), which is intermittently connected. It should be noted that the claims simply recite a measuring point "including" a reference half cell and a measuring half cell. The term "including" is open-ended and does not exclude additional unrecited elements or method steps (MPEP 2111.03). Therefore, Beijck et al. may include an additional electrode, and does disclose every limitation of claims 14 and 21, as shown in the rejection, above.

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TIMOTHY J. DOLE whose telephone number is (571)272-2229. The examiner can normally be reached on Mon. thru Fri. from 8:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on (571) 272-2245. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Timothy J. Dole/  
Primary Examiner, Art Unit 2831